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(54) **System and method for authentication between a recorder/reproducer device and a recording device**

(57) A record reproducing player and save data processing methods capable of insuring security of save data are provided. Save data is stored in a recording device, encrypted with the use of a program's individual encryption key, e.g., a content key, or a save data encryption key created based the content key, and when reproducing the save data a decryption process is conducted on it with the use of the save data decryption key particular to the program. Furthermore, it is made possible to create save data encryption keys based on a variety of restriction information, such as performing the storing and reproducing of the save data by conducting encryption and decryption on the save data with the save data encryption keys and decryption keys created with the use of a record reproducing player's individual key or a user's password. The record reproducing player performs au-

thentication between itself and a recording device.

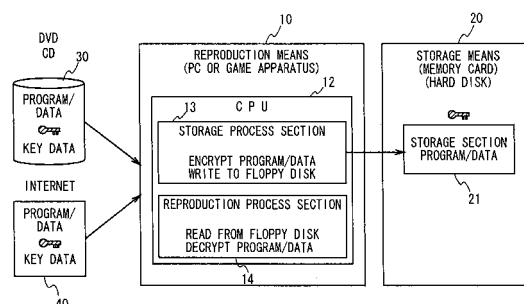


FIG. 1



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# EUROPEAN SEARCH REPORT

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| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                    |                                                                                                                                                                   |                                                                                                                                                                                                                                                                                       |                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Category                                                                                                                                                                                                                                               | Citation of document with indication, where appropriate, of relevant passages                                                                                     | Relevant to claim                                                                                                                                                                                                                                                                     | CLASSIFICATION OF THE APPLICATION (IPC) |
| X                                                                                                                                                                                                                                                      | WO 97/43761 A (INTERTRUST TECHNOLOGIES CORP; SHEAR, VICTOR, H; SIBERT, OLIN, W; VANWI) 20 November 1997 (1997-11-20)                                              | 13-17                                                                                                                                                                                                                                                                                 | INV.<br>H04L9/32<br>G11B20/00           |
| A                                                                                                                                                                                                                                                      | * page 44, line 8 - line 17 *                                                                                                                                     | 1-12,<br>18-28                                                                                                                                                                                                                                                                        |                                         |
|                                                                                                                                                                                                                                                        | * page 54, line 20 - page 55, line 3 *                                                                                                                            |                                                                                                                                                                                                                                                                                       |                                         |
|                                                                                                                                                                                                                                                        | * page 86, line 17 - page 87, line 9 *                                                                                                                            |                                                                                                                                                                                                                                                                                       |                                         |
|                                                                                                                                                                                                                                                        | -----                                                                                                                                                             |                                                                                                                                                                                                                                                                                       |                                         |
| A                                                                                                                                                                                                                                                      | US 5 450 489 A (OSTROVER ET AL)<br>12 September 1995 (1995-09-12)<br>* column 2, line 57 - column 3, line 8 *<br>* column 21, line 58 - column 22, line 49 *      | 1-28                                                                                                                                                                                                                                                                                  |                                         |
|                                                                                                                                                                                                                                                        | * abstract *                                                                                                                                                      |                                                                                                                                                                                                                                                                                       |                                         |
|                                                                                                                                                                                                                                                        | -----                                                                                                                                                             |                                                                                                                                                                                                                                                                                       |                                         |
| A                                                                                                                                                                                                                                                      | EP 0 851 418 A (KABUSHIKI KAISHA TOSHIBA)<br>1 July 1998 (1998-07-01)<br>* abstract *                                                                             | 1,13,20,<br>28                                                                                                                                                                                                                                                                        |                                         |
|                                                                                                                                                                                                                                                        | -----                                                                                                                                                             |                                                                                                                                                                                                                                                                                       |                                         |
| A                                                                                                                                                                                                                                                      | PATENT ABSTRACTS OF JAPAN<br>vol. 1999, no. 04,<br>30 April 1999 (1999-04-30)<br>& JP 11 008618 A (TOSHIBA CORP),<br>12 January 1999 (1999-01-12)<br>* abstract * | 1,13,20,<br>28                                                                                                                                                                                                                                                                        | TECHNICAL FIELDS<br>SEARCHED (IPC)      |
|                                                                                                                                                                                                                                                        | -----                                                                                                                                                             |                                                                                                                                                                                                                                                                                       | G11B<br>H04L<br>G06F                    |
| The present search report has been drawn up for all claims                                                                                                                                                                                             |                                                                                                                                                                   |                                                                                                                                                                                                                                                                                       |                                         |
| Place of search<br><b>Munich</b>                                                                                                                                                                                                                       |                                                                                                                                                                   | Date of completion of the search<br><b>18 July 2006</b>                                                                                                                                                                                                                               | Examiner<br><b>Cretaine, P</b>          |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |                                                                                                                                                                   | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>.....<br>& : member of the same patent family, corresponding document |                                         |

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EPO FORM 1503 03.02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 07 7295

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

18-07-2006

| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|-------------------------------------------|---|---------------------|----------------------------|---------------------|
| WO 9743761                                | A | 20-11-1997          | AU 3205797 A               | 05-12-1997          |
|                                           |   |                     | CN 1492429 A               | 28-04-2004          |
|                                           |   |                     | CN 1225739 A               | 11-08-1999          |
|                                           |   |                     | EP 0898777 A2              | 03-03-1999          |
|                                           |   |                     | JP 2001501763 T            | 06-02-2001          |
|                                           |   |                     | JP 2005243014 A            | 08-09-2005          |
| -----                                     |   |                     |                            |                     |
| US 5450489                                | A | 12-09-1995          | AT 249086 T                | 15-09-2003          |
|                                           |   |                     | AT 199608 T                | 15-03-2001          |
|                                           |   |                     | AU 673634 B2               | 14-11-1996          |
|                                           |   |                     | AU 7982194 A               | 22-05-1995          |
|                                           |   |                     | CA 2175063 A1              | 04-05-1995          |
|                                           |   |                     | DE 69426828 D1             | 12-04-2001          |
|                                           |   |                     | DE 69426828 T2             | 02-08-2001          |
|                                           |   |                     | DE 69433119 D1             | 09-10-2003          |
|                                           |   |                     | DE 69433119 T2             | 26-08-2004          |
|                                           |   |                     | DK 728358 T3               | 17-04-2001          |
|                                           |   |                     | EP 0728358 A1              | 28-08-1996          |
|                                           |   |                     | ES 2204387 T3              | 01-05-2004          |
|                                           |   |                     | ES 2155858 T3              | 01-06-2001          |
|                                           |   |                     | GR 3035667 T3              | 29-06-2001          |
|                                           |   |                     | HK 1029648 A1              | 24-12-2003          |
|                                           |   |                     | JP 11250573 A              | 17-09-1999          |
|                                           |   |                     | JP 2942357 B2              | 30-08-1999          |
|                                           |   |                     | JP 8510856 T               | 12-11-1996          |
|                                           |   |                     | PT 728358 T                | 29-06-2001          |
|                                           |   |                     | WO 9512200 A1              | 04-05-1995          |
| -----                                     |   |                     |                            |                     |
| EP 0851418                                | A | 01-07-1998          | CN 1186298 A               | 01-07-1998          |
|                                           |   |                     | DE 69731518 D1             | 16-12-2004          |
|                                           |   |                     | DE 69731518 T2             | 20-10-2005          |
|                                           |   |                     | KR 264313 B1               | 16-08-2000          |
|                                           |   |                     | TW 412734 B                | 21-11-2000          |
|                                           |   |                     | US 6141483 A               | 31-10-2000          |
| -----                                     |   |                     |                            |                     |
| JP 11008618                               | A | 12-01-1999          | CN 1208296 A               | 17-02-1999          |
|                                           |   |                     | JP 3575951 B2              | 13-10-2004          |
| -----                                     |   |                     |                            |                     |